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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,188	01/31/2002	Steven Teig	SPLX.P0095	4299
48947	7590	09/12/2005	EXAMINER	
STATTLER, JOHANSEN, AND ADELI LLP 1875 CENTURY PARK EAST SUITE 1050 CENTURY CITY, CA 90067			LIN, SUN J	
			ART UNIT	PAPER NUMBER
			2825	
DATE MAILED: 09/12/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/066,188

Applicant(s)

TEIG ET AL.

Examiner

Sun J. Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-24 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 7 and 16 is/are rejected.
- 7) ☒ Claim(s) 3-6, 8-15 and 17-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/17/2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/13/03, 10/23/03, 12/3/03, 12/22/03, 1/20/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This office action is in response to application 10/066,188 filed on 01/31/2002. Claims 1 – 24 remain pending in the application.

#### ***Abstract Objections***

- 2 Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract is objected to because it exceeds the limit of 150 words. Appropriate correction is required. See MPEP § 608.01(b).

#### ***Claim Objections***

3. Claims listed below are objected to because of the following informalities:

Claim 1, line 4, after "graph;" insert **—and—**.

Claim 3, line 6, after "element," insert **—and—**.

Claim 5, line 6, after "element," insert **—and—**.

Claim 5, line 11, after "node," insert **—and—**.

Claim 7, line 4, after "graph," insert **—and—**.

Claim 8, line 5, after "graph," insert **—and—**.

Claim 8, line 11, after "node," insert **—and—**.

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- Claim 9, line 2, after "functions;" insert ~~—and—~~.
- Claim 16, line 1, before "topology" delete ~~—the—~~.
- Claim 17, line 5, after "element," insert ~~—and—~~.
- Claim 22, line 1, before "topology" delete ~~—the—~~.
- Claim 22, line 8, after "node," insert ~~—and—~~.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of 35 U.S.C. 102(e) which forms the basis for all obviousness rejections set forth in this Office action:

(e) the invention was described in-

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 1, 2, 7 and 16 are rejected under 35 U.S.C. 102(e) as being unpatentable over U.S. Patent No. 6,490,717 B1 to Pedersen et al.

6. As to Claim 1, Pedersen et al. show and teach the following subject matter:

- Look-up table of a sub-netlist of a digital (network) circuit design containing a set of logic elements (i.e., circuit elements) – [col. 6, line 18 – 41; col. 5, line 46- 50]; Notice that (1) a sub-netlist is a netlist of a sub-network in an digital circuit design (2) a look-up table is a method of pre-tabulating the sub-network;
- Defining a schematic (i.e., graph) of sub-netlist of the sub-network and the sub-netlist that has one logic node for each logic element – [col. 5, line 46 – 50]; sub-netlist of sub-network contains logic nodes – [col. 11, line 39];
- Generating encoded (Boolean) representation of the schematic (graph) of the sub-netlist – [col. 6, line 24 – 27]; Notice that the encoded representation of schematic (graph) of the sub-netlist is stored in the netlist for future retrieval.

For reference purposes, the explanations given above in response to Claim 1 are called [Response A] hereinafter.

7. As to Claim 2, reasons are included in [Response A] given above. Notice that the entire schematic (graph) of sub-netlist of sub-network of a logic circuit is encoded and each logic element in the sub-network has one node, therefore, an encoded representation is generated for a node associated with each logic element.

For reference purposes, the explanations given above in response to Claim 2 are called [Response B] hereinafter.

8. As to Claim 16, reasons are included in [Response A] and [Response B] given above.

9. As to Claim 7, in addition to reasons included in [Response A] given above, it is noted that (1) a netlist of a logic circuit contain a set of sub-netlists (2) each sub-netlist associated with a sub-network.

#### ***Allowable Subject Matter***

10. Claims 22 – 24 are allowed. Claims 3 – 6, 8 – 15 and 17 – 21 are objected to as being dependent upon a rejected base claim, but they would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Those claims are allowed is because that the prior art does not teach or fairly suggest the following subject matter:

- Generating each encoded node representation includes specifying a node identifier that specifies the start of an encoded description of an encoded node in combination with other limitations as recited in **Claim 3, Claim 5, Claim 8 and Claim 17**, respectively;
- Encoded representation of a graph is a bit stream in combination other limitations associated with **Claim 6**;

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- An encoded representation of a graph that represents topology of interconnected circuit elements of a sub-network comprising, for each node, a node identifier and an edge identifier in combination with other limitations as recited in **Claim 22**.

### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sun J Lin whose telephone number is (571) 272 - 1899. The examiner can normally be reached on Monday-Friday 9:30AM - 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S Smith can be reached on (571) 272 - 1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sun James Lin  
Patent Examiner  
Art Unit 2825  
September 6, 2005

